



Safety Data Sheet

According to federal final rule of hazard communication revised on
2012 (HazCom 2012)

Product Identification: Ethyl Isonipecotate 0523Gj Ghs03 Div.3 sds Ethyl Isonipecotate

Date of issue: March 29, 2024

Date of Compilation : November 05, 2019

Date of Revision : March 29, 2024

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Revision Number : 03

Version Number : 0523Gj Ghs03 Div.3 sds Ethyl Isonipecotate

Supersedes date : January 02, 2024

Supersedes version : 0523Gj Ghs02 Div.3 sds Ethyl Isonipecotate



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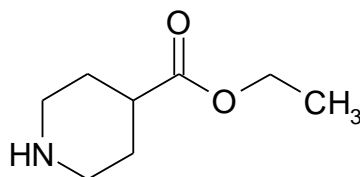
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SECTION 1.: IDENTIFICATION

PRODUCT NAME Ethyl Isonipecotate
CAS RN 1126-09-6
EC# 214-416-7
SYSTEMATIC NAME Ethyl 4-piperidinecarboxylate
MOLECULAR FORMULA C₈H₁₅NO₂
STRUCTURAL FORMULA



REGISTERED AND FACTORY OFFICE:

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Emergency telephone:

For Chemical Emergency ONLY (in the case of fire, leak, spill, exposure or accident) Call

Chemtrec: 1-800-424-9300 (US), 1-703-527-3887 (Outside U.S.)

Chemtrec (India) : 000-800-100-7141

For ALL other emergencies call Emergency Control Room Gajraula at 99970 22412



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Product Uses:

- Ethyl Isonipecotate is used as an intermediate in the synthesis of Active Pharmaceutical ingredients like Sequifenadine, Ritanserin and Palonosetron. It is probably used as an intermediate in the pharmaceutical industry.

SECTION 2: HAZARDS IDENTIFICATION

GHS CLASSIFICATION

Flammable Liquids: Category 4
Serious eye damage/eye irritation: Category 2A
Skin Corrosion/irritation: Category 2
Specific Target organ Toxicity: Category 3
(Single Exposure)



Hazard Pictogram: GHS 07

Signal Word: Warning!

HAZARD AND PRECAUTIONARY STATEMENTS:

HAZARD STATEMENTS

- H315: Causes skin irritation.
- H319: Causes serious eye irritation.
- H335: May cause respiratory irritation.
- H227: Combustible liquid.

PRECAUTIONARY STATEMENTS

- P264: Wash hands, eyes and face thoroughly after handling.
- P270: Do not eat, drink or smoke when using this product.
- P280: Wear protective gloves/clothing and eye/face protection.
- P271: Use only outdoors or in a well-ventilated area.
- P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
- P210: Keep away from flames and hot surfaces.-No smoking.
- P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
- P314: Get medical advice/attention if you feel unwell.
- P332 + P313: If skin irritation occurs: Get medical advice/attention.
- P362: Take off contaminated clothing and wash before reuse.
- P305 + P351 + P338: IF IN EYES, Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.



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- P337 + P313: If eye irritation persists: Get medical advice/attention.
- P304+340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.
- P310: Immediately call a POISON CENTER or doctor/physician.
- P405: Store locked up.
- P403+P233: Store in a well ventilated place. Keep container tightly closed.
- P501: Dispose of contents/container to local/regional/national/international regulations.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Sr.No.	Chemical	CAS #	EC#	Purity
1.	Ethyl Isonipecotate	1126-09-6	214-416-7	>98.5%

SECTION 4: FIRST AID MEASURES

Key symptoms

- **Acute effects:**
Ethyl Isonipecotate is irritating to skin and respiratory system and causes irritation to mucous membrane and upper respiratory tract. It causes serious irritation to eyes.
- **Chronic effects:**
To the best of our knowledge, the chronic health effects of this product have not been fully investigated.

FIRST AID:

- **Eyes:** If in eyes rinse cautiously with water for at least 15 minutes. Remove contact lenses if easy to do so. Continue rinsing. Seek medical attention.
- **Skin:** Immediately take off all contaminated clothing. Wash thoroughly with water for at least 15 minutes. Wash contaminated clothes before reuse. Seek immediate medical attention.
- **Inhalation:** Remove to fresh air and keep at rest in a position comfortable for breathing. Call a physician if you feel unwell. Monitor for respiratory distress. Apply artificial respiration if not breathing. Do not use mouth-to-mouth methods if victim ingested or inhaled the substance; give artificial respiration with the aid of a pocket mask equipped with a one-way valve or other proper respiratory medical device. Toxic vapours may be released on thermal decomposition including nitrogen oxides, carbon monoxide and cyanide.
- **Ingestion:** If swallowed call a poison center if you feel unwell. Rinse mouth. Do NOT induce vomiting by use of emetics. Seek medical attention.



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SECTION 5 : FIRE-FIGHTING MEASURES

Extinguishing media:

- *Appropriate extinguishing media:* Dry chemical powder, carbon dioxide, and alcohol resistant foam. Water spray can be effective in cooling down the fire-exposed containers and knocking down the vapours. Water jets may be used to flush spills away and dilute the same to non-flammable mixtures fog or alcohol-resistant foam by directing streams to the periphery of the fires to prevent spread.

Special Protective Equipment and Precautions for Fire Fighter:

- Evacuate the area and fight fires from a safe distance.
- If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions or as per locally valid procedures.
- Fire fighters must wear Self Contained Breathing Apparatus (SCBA) and full protective clothing. The chemical is harmful in contact with skin.
- Report any run-off of fire waters contaminated with this chemical as per local and federal procedures applicable.

Unusual fire and explosion hazard:

- Toxic vapors may be released on thermal decomposition including nitrogen oxides, carbon monoxide and cyanide.
- High vapor concentration may result in an explosion hazard.
- Vapors are heavier than air. May travel considerable distance from source and flashback.

SECTION 6 : ACCIDENTAL RELEASE MEASURES

Minor Spills

- Clean up all spills immediately following relevant Standard Operating Procedures.
- Avoid breathing vapors and contact with skin and eyes.
- Shut off leak source if possible.
- Shut off all possible sources of ignition.
- Wear protective clothing, boots, impervious gloves and safety glasses.
- Wipe up.
- Decontaminate all equipment.
- Use non-sparking tools.

Major Spill

- Alert Emergency Responders and tell them location and nature of hazard.
- Shut off all possible sources of ignition and increase ventilation.
- Wear protective clothing, full boots, impervious gloves, safety glasses and Self Contained Breathing Apparatus (SCBA), as may be deemed appropriate.
- Clear area of personnel and move upwind.



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- Stop leaks if possible.
- Prevent, by any means available, spillage from entering drains or water and watercourses.
- Collect recoverable product into labeled containers for recycling, recovery or disposal.
- Contain spill with sand, earth or vermiculite.
- Spread area with lime or absorbent material, and leave for at least 1 hour before washing.
- Clean up all tools and equipment.
- Inform authorities in event of contamination of any public sewers, drains or water bodies.

SECTION 7: HANDLING AND STORAGE

Handling

- Do not breathe vapor or mist.
- Wear protective gloves/clothing and eye/face protection.
- Wash thoroughly after handling.
- Ground and secure containers when dispensing or pouring product.
- Avoid contact with incompatible materials.
- When handling, DO NOT eat, drink or smoke.
- Launder contaminated clothing before re-use.
- If on skin or hair, IMMEDIATELY remove all contaminated clothing and rinse/shower with plenty of water.
- Use in a well ventilated place/Use protective clothing commensurate with exposure levels.
- Use non-sparking tools.

Storage

- Store at ambient temperature at dry and ventilated place.
- Store away from incompatible materials.
- Keep securely closed when not in use.

SECTION 8 : EXPOSURE CONTROLS / PERSONAL PROTECTION

Control parameters

Exposure Limits Values

Chemical name	STEL (ppm)	NIOSH	ACGIH	OSHA
Ethyl Isonipecotate	None available	None available	None available	None available



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Exposure Limits (International):

- Not available.

Exposure controls

Appropriate Engineering Controls:

- Provide exhaust ventilation or other engineering controls to keep the relevant airborne concentrations below their respective occupational exposure limits. Local ventilation is usually preferred. Ensure that eyewash stations and safety showers are close to the workstation location.

Personal Protection:

- Protective clothing should be selected specifically for the working place, depending on concentration and quantity of the hazardous substances handled. The resistance of the protective clothing to chemicals should be ascertained with the respective supplier.
- **Hands:** Wear appropriate protective gloves to prevent skin exposure.
The protective gloves to be used must comply with the specifications of EC directives 89/686/EEC and the resultant standard EN374.
- **Eyes:** Safety goggles/ Chemical Safety glasses and Face shield.
- **Clothing:** Boots and clothing to prevent contact.
- **Respirator:** Follow the OSHA respirator regulations found in 29CFR 1910.134 or European Standard EN 149. Always use a NIOSH or European Standard EN 149 approved respirator when necessary.
For emergency situations, wear a positive pressure, pressure-demand, full face piece self-contained breathing apparatus (SCBA) or pressure- demand supplied air respirator with escape SCBA and a fully-encapsulating, chemical resistant suit. (EPA,1998).

General Hygiene and general comments:

- Wash hands and face after working with substance.
- Immediately change contaminated clothing.

SECTION 9 : PHYSICAL AND CHEMICAL PROPERTIES

- Information on basic physical and chemical properties.

Sr.No.	Parameter	Typical value
1.	Appearance	Clear colorless to light yellow oily liquid.
2.	Odor	Characteristic odor
3.	Odor Threshold	Not available
4.	pH	Not available



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5.	Melting point/Freezing point	10 - 11 ⁰ C
6.	Boiling Point	223 – 225 ⁰ C
7.	Flash point	80 ⁰ C
8.	Evaporation rate (n-BuAc=1)	Not available
9.	Flammability	Not available
10.	Upper/lower flammability or Explosive limits	Not available
11.	Vapor pressure	0.394 hPa at 25 ⁰ C
12.	Vapor density (air=1)	Not available
13.	Relative density	1.021
14.	Solubility	Soluble in water and most organic solvents (methanol, ethanol and ethyl acetate etc.)
15.	Partition coefficient : n- (Octonol / water)	1.15
16.	Auto-ignition temperature	Not available
17.	Decomposition temperature	Not available
18.	Viscosity	Not available
19.	Explosive property	No
20.	Oxidizing property	No

SECTION 10: STABILITY AND REACTIVITY

- **Stability:** Stable at normal conditions of temperature and pressure.



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- **Conditions to avoid:** Keep away from High temperature, mechanical shock, incompatible materials, ignition sources, and moisture. Store in tightly closed containers in a cool, well ventilated area away from heat, flame and sparks.
- **Incompatible chemicals:** Strong oxidizing agents, acids, acid chlorides, alkali and alkali metals.
- **Hazardous decomposition products:** Thermal decomposition may produce carbon monoxide and oxides of nitrogen, carbon dioxide & nitrogen, Hydrogen chloride, hydrogen cyanide and irritating and toxic fumes.
- **Hazardous Polymerization:** Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION

a) *Acute toxicity*

- Ethyl Isonipecotate is irritating to skin and respiratory system and causes irritation to mucous membrane and upper respiratory tract. It causes serious irritation to eyes.

RTECS#: Unlisted

LD50(Oral) Rat: > 5 000 mg/kg bw

b) *Skin corrosion/irritation*

- Causes skin irritation.

c) *Serious eye damage/irritation*

- Causes eye irritation.

d) *Respiratory or skin sensitization*

- No data is available..

e) *Germ cell Mutagenicity*

- No data is available.

f) *Carcinogenicity*

- Not listed by NTP, IARC and OSHA.
- Not present on the EU CMR list.
- According to the information presently available Ethyl Isonipecotate has not been tested for its ability to cause cancer in animals.

g) *Reproductive toxicity*

- According to the information presently available Ethyl Isonipecotate has not been tested for its ability to affect reproduction.

h) *STOT-single exposure*

- Causes irritation to respiratory system.

i) *STOT- repeated exposure*



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- No data available.
- j) *Aspiration Hazards*
- No data available.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity :

Ecotoxicity:

- LC50 for freshwater fish: 66 mg/L
- LC50 for marine water fish: 106 mg/L
- EC10, LC10 or NOECEC10, LC10 or NOEC for marine water fish: 13 mg/L
- EC50/LC50 for freshwater invertebrates: 370 mg/L
- The substance is not estimated to be toxic to aquatic organisms

Persistence and degradability

- It is expected to be readily biodegradable in aerobic and anaerobic conditions.

Bio accumulative potential

- BCF = 2.65
- Log Kow = 1.15

Based on the Log Kow and Bio concentration factor value it is expected to have low potential to concentrate in fatty tissue of fish and aquatic organisms.

Mobility in soil

- Log Koc= 1.907 (estimated). Low sorption.
- Henry's Law Constant = 5.4×10^{-08} atm/m³ mole at 25 degrees. It is non-volatile from aqueous bodies. Log Kow = 1.15 (estimated). Low potential to bio accumulate.

Other adverse effects.

- **Environment Fate:**

Based on the environmental modeling, this material has a low potential to get absorbed in the organic matter of soil and is non-volatile from water bodies. Since this is an estimated result it is recommended that the material should not be disposed into the environment. The material should never be disposed into the sewage.

SECTION 13: DISPOSAL CONSIDERATIONS

- Burn in a chemical incinerator equipped with an afterburner and scrubber.
- Exert extra care in igniting, as this material is combustible.
- Dispose of this material in accordance with standard practice for disposal of potentially hazardous materials as required by applicable federal, state or local laws. Note that disposal regulations may also apply to empty containers and equipment rinsates.



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SECTION 14: TRANSPORT INFORMATION

- It is considered to be Non Hazardous for Transport by Road/Rail/Sea/Air and not regulated by ADR/RID/IMDG/IATA.

Environmental hazards:

- Marine pollutant: No

SECTION 15: REGULATORY INFORMATION

European Union Information:

Classification as per CLP Regulation 1272/2008:

- **Hazards Class and Category:** Skin Irrit.cat.2, Eye irrit.cat.2, STOT SE cat 3
- **Hazard Statements:** H315; H319; H335

Chemical Inventory Lists:	Status
TSCA:	Not listed
EINECS:	214-416-7
Canada(DSL/NDSL):	Not Listed
Japan:	Not listed
Korea:	Not listed
Australia:	Not Listed
China: IECSC	Not Listed
New Zealand	Listed
Philippines	Listed
Taiwan	Listed

US information

CERCLA (Comprehensive Environmental Response, Compensation, and Liability Act): Ethylisonipecotate is not listed

SARA 302/304 : Ethylisonipecotate is not listed

SARA 311/312 : See section 2 for more information

California Prop. 65: Ethylisonipecotate is not listed

CAA (Clean Air Act): Ethylisonipecotate is not listed

CWA (Clean Water Act): Ethylisonipecotate is not listed



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EU Information

Water hazard class (WGK): WGK 3 (Severely hazardous to water)

Substance of Very High Concern (SVHC) according to the REACH Regulations (EC) No. 1907/2006:
Ethylisonipecotate is not listed

SECTION 16: OTHER INFORMATION

Compilation information of safety data sheet

Chemical: Ethyl Isonipecotate

CAS #: 1126-09-6

File Name: 0523Gj Ghs03 Div.3 sds Ethyl Isonipecotate

Revision Number: 03

Date of Issue of SDS: March 29, 2024

Revision Due Date: February, 2027

(a) A key or legend to aberrations and acronyms used in the safety data sheet;

- PBT = Persistent Bio accumulative and Toxic.
- vPvB= Very Persistent and Very Bio accumulative.
- SCBA= Self Contained Breathing Apparatus.
- NIOSH REL= National Institute for Occupational Safety and Health Recommended Exposure Limit.
- OSHA PEL=Occupational Safety and Health Administration Permissible Exposure Limit.
- OELTWA= Occupational Exposure Limit Time Weighted Averages.
- IDLH= Immediately Dangerous to Life or Health.
- UEL= Upper Explosive Limit.
- LEL= Lower Explosive Limit.
- RTECS= Registry of Toxic Effects of Chemical Substances.
- NTP=National Toxicology Program
- IARC= International Agency for Research on Cancer.
- EPA=Environmental Protection Agency.
- TSCA= Toxic Substances Control Act.
- CERCLA= Comprehensive Environmental Response, Compensation, and Liability Act.
- SARA= Superfund Amendments and Reauthorization Act.
- NFPA= National Fire Protection Association.
- WHIMS= Workplace Hazardous Materials Information System.
- DSL/NDSL= Domestic/Non-Domestic Substances List.
- CSR=Chemical Safety Report.
- BCF = Bio Concentration Factor.
- DNEL = Derived No Effect Level.
- PNEC = Predicted No Effect Concentration.



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- TLV = Threshold Limit Value.
- ACGIH = American Conference of Governmental Industrial Hygienists.
- REACH = Registration, Evaluation, Authorization and Restriction of Chemicals.
- CLP = Classification, Labeling and Packaging.
- LD / LC = Lethal Doses / Lethal Concentration.
- GHS = Globally Harmonized System.
- ADR = Accord européen relative au transport international de marchandises.
- IMDG-Code = International Maritime Code for Dangerous Goods.
- EmS = Emergency measures on Sea.
- ICAO = International Civil Aviation Organization.
- IATA/DGR= International Air Transport Association/Dangerous Goods Regulation.

(b) Key Literature reference and sources for data

Biographical reference and data sources

- CLP REG (regulation) (EC) no. 1272/2008, last modification by regulation (EC) no. 790/2009
- DIR 67/548/EWG, last modification by DIR 2009/2/EC
- REG (EC) no. 1907/2006, last modification by REG (EC) Nr. 453/2009

Internet

- RTECS

Company's Declaration:

Information contained in this SDS is believed to be correct but no representation, guarantee or warranties of any kind are made as to its accuracy, suitability for a particular application or results to be obtained from them. This SDS shall be used as a guide only. Jubilant Ingrevia Limited makes no warranties expressed or implied of the adequacy of this document for any particular purpose.

(End of Safety Data Sheet)